

CLAIMS

1. A hydrodynamic bearing device comprising: a shaft member; and a radial bearing portion having a radial bearing gap formed around an outer circumference of the shaft member and supporting the shaft member in a radial direction in a non-contact manner by an action of a dynamic pressure of fluid generated in the radial bearing gap, wherein

the shaft member has a guide face serving as a guide when another member is press fitted into the shaft member, and a blunting portion formed between the guide face and the outer circumferential surface of the shaft member adjacent to the guide face, the blunting portion having a shape in which an edge is blunted.

2. A hydrodynamic bearing device as claimed in claim 1, wherein

the guide face, the outer circumferential surface of the shaft member adjacent to the guide face, and the blunting portion are formed by grinding.

3. A hydrodynamic bearing device as claimed in claim 2, wherein

the guide face, the outer circumferential surface of the shaft member, and the blunting portion are ground simultaneously.

4. A hydrodynamic bearing device as claimed in any one of claims 1 to 3, wherein

the blunting portion is formed to have a curved surface.

5 5. A hydrodynamic bearing device as claimed in any one of claims 1 to 4, wherein

the another member that is to be press fitted into the shaft member is a disc hub for holding a disc.

6. A motor comprising a hydrodynamic bearing device
10 as claimed in any one of claims 1 to 5, a rotor magnet, and a stator coil.

7. A method for manufacturing a hydrodynamic bearing device having: a shaft member; and a radial bearing portion having a radial bearing gap formed around an outer
15 circumference of the shaft member and supporting the shaft member in a radial direction in a non-contact manner by an action of a dynamic pressure of fluid generated in the radial bearing gap, the method being characterized by forming, on the shaft member, a guide face serving as a
20 guide when another member is press fitted into the shaft member and thereafter simultaneously grinding the guide face, the outer circumferential surface of the shaft member adjacent to the guide face, and a boundary portion between them.